WE CLAIM:

1. An arrangement for scanning indicia associated with objects passing in an advancement direction across a single horizontal window of a point-of-transaction workstation at which the indicia are to be electro-optically read, the arrangement comprising:

a) a rotary mirrored component rotatable about an axis;

b) a plurality of stationary, folding mirrors arranged generally about the axis;

c) a light source for generating and directing a light beam to the rotary component for reflection therefrom to the stationary mirrors for reflection therefrom through the window to multiple surfaces of each object;

d) a drive for rotating the rotary component to sweep the light beam across the stationary mirrors and form a scan pattern of scan lines at and past the window and onto the multiple surfaces of each object; and

e) at least one of the stationary mirrors being located behind the rotary component, as considered downstream of the advancement direction, for reflecting at least one of the scan lines at a trailing surface of each object.

2. The arrangement of claim 1, wherein the rotary component has a plurality of planar mirrors arranged about the axis.

3. The arrangement of claim 1, wherein the indicia are bar code symbols orientable on the objects between mutually orthogonal orientations, and wherein said at least one stationary mirror reflects said at least one scan line to sweep a symbol oriented in one of said orientations; and wherein at least another of the stationary mirrors is located behind the rotary

component, as considered downstream of the advancement direction, for reflecting another of the scan lines at the trailing surface of each object to sweep a symbol oriented in the other of said orientations.

4. The arrangement of claim 1; and an oscillating mirror mounted for oscillation between the light source and the rotary component, and an oscillator for oscillating the oscillating mirror to move the scan pattern relative to the window.

5. The arrangement of claim 4, wherein the oscillator oscillates the oscillating mirror over an arcuate distance on the order of 1° and at a frequency on the order of 40 Hz.

6. A method of scanning indicia associated with objects passing in an advancement direction across a single horizontal window of a point-of-transaction workstation at which the indicia are to be electro-optically read, the method comprising the steps of:

a) mounting a rotary mirrored component for rotation about an axis;

b) arranging a plurality of stationary, folding mirrors generally about the axis;

c) generating and directing a light beam to the rotary component for reflection therefrom to the stationary mirrors for reflection therefrom through the window to multiple surfaces of each object;

d) rotating the rotary component to sweep the light beam across the stationary mirrors and form a scan pattern of scan lines at and past the window and onto the multiple surfaces of each object; and

e) locating at least one of the stationary mirrors behind the rotary component, as considered downstream of the advancement direction, for reflecting at least one of the scan lines at a trailing surface of each object.